

Science for Students with Disabilities:

Good for Students, Good for Science!

Thomas E. Scruggs George Mason University



Students with Disabilities

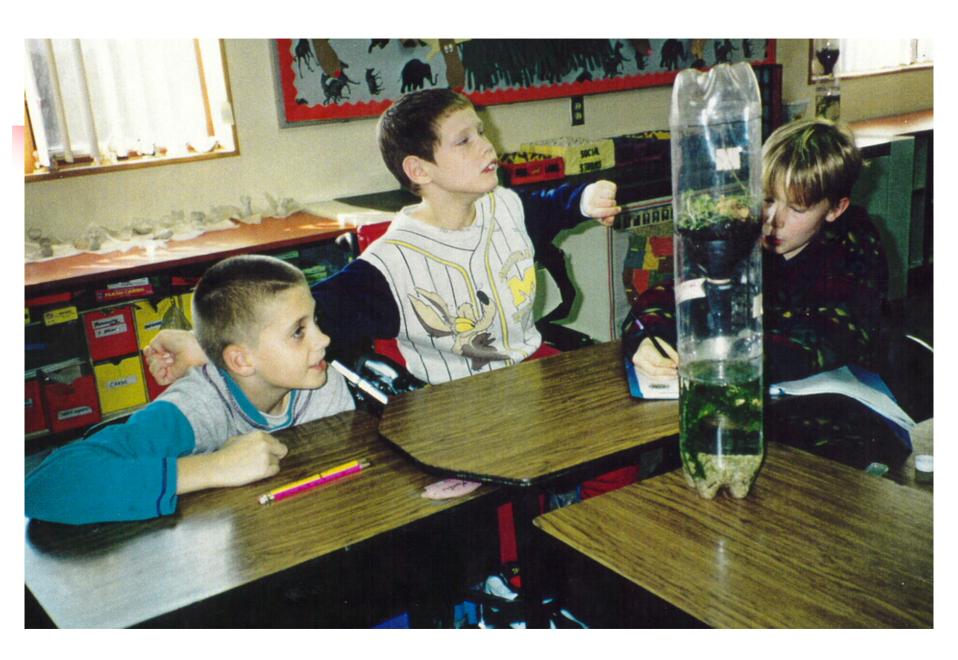
- 13.2% of all students
- 6,195,113, 30% increase in past decade
- 75.9% served 40% or more in general education classrooms

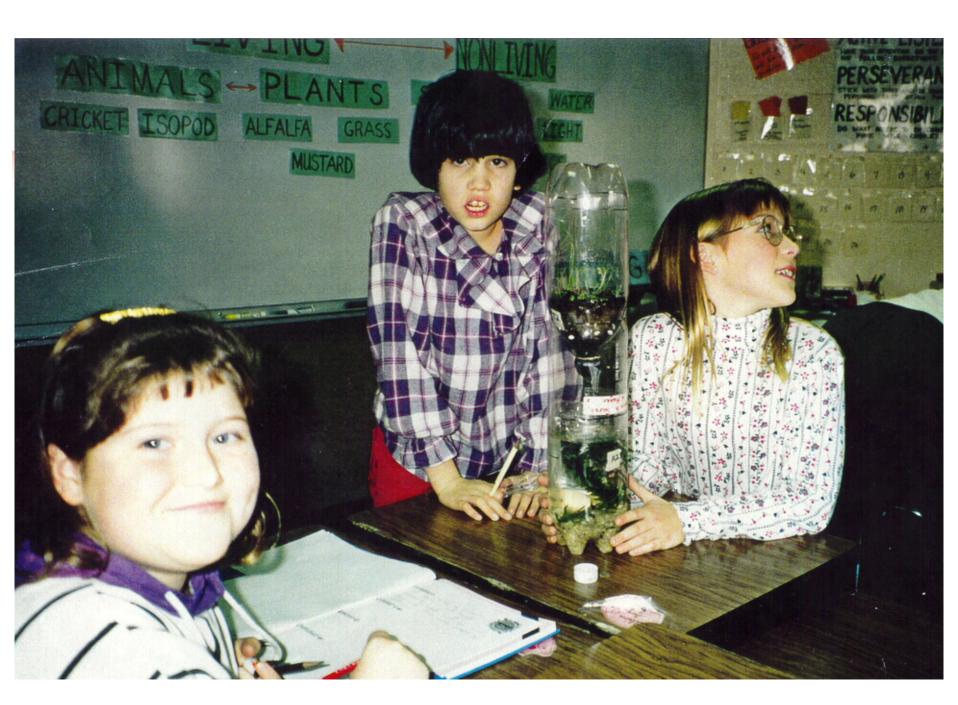


- Promotes alternative means for extending our physical and sensory abilities
- Promotes, encourages, and develops thinking skills
- Serves to finding order in the observed universe
- promotes learning for those who learn best by doing

Science

- Accomodations can benefit all students
- Can be particularly relevant
- Hands-on science instruction can be very effective and can minimize achievement differences







Assistive Technologies

- Communication
 - Communication boards
 - Speech recognition, Close captioning
 - Text readers, Web readers
 - Electronic switches
- Science
 - Accessible lab furniture
 - Microscope cameras, tactile graphics
 - Talking calculators, liquid level indicators
 - Braille thermometers, light sensors
 - 3-D interactive models



Good for Science

- 13.2% of school children K-12 identified with disabilities
- Only 6% will become scientists
- Science education can increase career opportunities can help increase the number of scientists and engineers.



Science Teachers with Disabilities

- Presently greatly underrepresented
- Can provide additional pool of potential science teachers
- Can provide role models for students with and without disabilities



Abraham Nemeth (1996)

...a blind person who is adequately trained in his field and who has mastered the skills of blindness can function as competently and as productively as anyone else as a mathematics teacher, and that his blindness need not be an obstacle in choosing that career.